PTO/SB/05 (11-00)

Please type a plus sign (+) inside this box ——

Approved for use through 10/31/2002, OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

Attorney Docket No. 5000-1-433

First Inventor Han-Lim LEE et al.

Title DUOBINARY OPTICAL...

EV 319094515 US Express Mail Label No. (Only for new nonprovisional applications under 37 CFR 1.53(b)) Assistant Commissioner for Patents **APPLICATION ELEMENTS** ADDRESS TO: Box Patent Application See MPEP chapter 600 concerning utility patent application contents. Washington, DC 20231 Fee Transmittal Form (e.g., PTO/SB/17) CD-ROM or CD-R in duplicate, large table or (Submit an original and a duplicate for fee processing) Computer Program (Appendix) Applicant claims small entity status. 8. Nucleotide and/or Amino Acid Sequence Submission See 37 CFR 1.27. (if applicable, all necessary) (preferred errangement set forth below) 3. X Computer Readable Form (CRF) - Descriptive title of the invention b. Specification Sequence Listing on: - Cross Reference to Related Applications i. CD-ROM or CD-R (2 copies); or - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, i i. 🔲 or a computer program listing appendix Statements verifying identity of above copies - Background of the Invention - Brief Summary of the Invention ACCOMPANYING APPLICATION PARTS - Brief Description of the Drawings (if filed) - Detailed Description Assignment Papers (cover sheet & document(s)) - Claim(s) 37 CFR 3.73(b) Statement Power of - Abstract of the Disclosure Attomey (when there is an assignee) English Translation Document (if applicable) 4. X Drawing(s) (35 U.S.C. 113) [Total Sheets Copies of IDS Information Disclosure 5. Oath or Declaration [Total Pages Citations Statement (IDS)/PTO-1449 Newly executed (original or copy) Copy from a prior application (37 CFR 1.63 (d)) (for continuationIdivisional with Box 18 completed) **Preliminary Amendment** Return Receipt Postcard (MPEP 503) (Should be specifically itemized) Certified Copy of Priority Document(s) (if foreign priority is claimed) **DELETION OF INVENTOR(S)** 15. X Signed statement attached deleting inventor(s) Request and Certification under 35 U.S.C. 122 named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. Application Data Sheet. See 37 CFR 1.76 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) of prior application No.: Prior application information: Exeminer Group Art Unit: For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS 33942 Customer Number or Bar Code Lebel Correspondence address below (insert Customer No. or Attach bar code lebel here) Name Address State City Zip Code Country Telephone Fax Steve S. Cha Registration No. (Attorney/Agent) 44,069 Name (Print/Type) Date

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form-should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

PTO/SB/17 (01-03)

Approved for use through 04/30/2003, OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT

/A	790	\sim
141	7 90 1	1111

Complete if Known						
Application Number	Not yet assigned					
Filing Date	September 9, 2003					
First Named Inventor	Han-Lim LEE et al.					
Examiner Name	Not yet assigned					
Art Unit	Not yet assigned					
Attorney Docket No.	5000-1-433					

Check	METHOD OF PAYMENT (check all that apply)		FEE CALCULATION (continued)					
Peposit Account:			3. ADDITIONAL FEES					
Deposit Account Number Name 119 Commissioner is authorized to: (check all that apply) 1051 130 2051 65 Surcharge - late filips fee or cover sheep of the submirate of	Order U		<u>Large</u>					
Account Number Deposit CHA & REITER 1051 130 1052 50 205 25 Surcharge - late filing fee or oath 1052 50 205 25 Surcharge - late provisional filing fee or oath 1052 50 205 25 Surcharge - late provisional filing fee or oxer sheet 1052 50 205 25 Surcharge - late provisional filing fee or oxer sheet 1053 130 Non-English specification 1054 2050 1057 67 filing a request for ex parte reexamination 1054 130 200 1057 67 filing a request for ex parte reexamination 1054 130 200 1057 67 filing a request for ex parte reexamination 1058 130 1058 130 Non-English specification 1058 130 1058 130 Non-English specification 1058 130 10	Denosit						Fee Description	Fee Paid
Deposit Account					1	-	Surcharge - late filing fee or oath	
The Commissioner is authorized to: (check all that apply) Charge fee(s) indicated below	Deposit Account CHA & REITER		1052	50	2052	25		
Charge fee(s) indicated below		at annivi	1053	130	1053	130	Non-English specification	
Charge any additional fee(s) during the pendency of this application Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	I—I		1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
Examiner action 1251 110 1252 110 1252 110 1252 110 1253 130 1254 1450 1254 1450 1255 130 13			1804	920*	1804	920*		
1. BASIC FILING FEE Large Entity Small Entity Fee Fee Fee Fee Description Fee Paid 1253 110 2251 55 Extension for reply within first month 1253 1303 2002 165 Design filing fee 1401 320 1401 320 1401 320 1401 320 1401 320 1401 320 1401 320 1401 320 1402 320 1401 320 1402 320 1403 280 2403 1401 320 2402 160 Feiting a brief in support of an appeal 1402 320 1403 280 2403 1401 320 2402 160 Feiting a brief in support of an appeal 1402 320 1403 280 2403 1408 Request for oral hearing 1401 1301 1401 1302 1403 280 2403 1408 1403 2403 1408 1403 1408 1409			1805	1,840*	1805	1,840*		
1. BASIC FILING FEE Large Entity Small Entity Fee			1251	110	2251	55	Extension for reply within first month	
Large Entity Small Entity Fee			1252	410	2252	205	Extension for reply within second month	
Fee Fee Fee Fee Fee Description Fee Paid 1254 1,450 2254 725 Extension for reply within fourth month 1255 1,970 1205 18 1255 1,970 1205 18 1255 1,970 1205 18 1255 1,970 1255 1			1253	930	2253	465	Extension for reply within third month	
1001 750 2001 375		Fee Paid	1254	1,450	2254	725	Extension for reply within fourth month	
1002 330 2002 165 Design filing fee 1401 320 2401 160 Notice of Appeal 1402 320 2402 160 Filing a brief in support of an appeal 1402 320 2402 160 Filing a brief in support of an appeal 1403 280 2403 140 Request for oral hearing 1451 1,510 1451 1,510 Petition to institute a public use proceeding 1452 110 2452 55 Petition to revive - unavoidable 1453 1,300 2453 650 Petition to revive - unintentional 1453 1,300 2453 650 Petition to revive - unintentional 1502 170 2502 235 Design issue fee 1503 630 2503 315 Plant issue fee 1503 630 2503 315 Plant issue fee 1503 630 1807 50 Processing fee under 37 CFR 1.17(q) 1806 180 1806 180 Submission of Information Disclosure Strut 1807 50 1807 50 Processing fee under 37 CFR 1.17(q) 1806 180 18	· · ·	[750 00]	1255	1,970	2255	985	Extension for reply within fifth month	
1003 520 2003 260 Plant filing fee 1402 320 2402 160 Filing a brief in support of an appeal 1402 320 2403 140 Request for oral hearing 1403 280 2403 140 Request for oral hearing 1403 280 2403 140 Request for oral hearing 1451 1,510 Petition to institute a public use proceeding 1451 1,510 Petition to revive - unavoidable 1452 110 2452 55 Petition to revive - unintentional 1453 1,300 2453 650 Petition to revive - unintentional 1450 1,300 2453 650 Petition to revive - un		750.00	1401	320	2401	160	Notice of Appeal	
SUBTOTAL (1) (\$) 750.00 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Fee from Independent Claims Multiple Dependent Large Entity Small Entity Fee Fee Code (\$) Code (\$) Code (\$) Code (\$) Code (\$) 1202 18 2202 9 Claims in excess of 20 1203 280 2203 140 Multiple dependent Claims in excess of 3 1203 280 2205 9 ** Reissue claims in excess of 20 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$) 0.00		 	1402	320	2402	160	Filing a brief in support of an appeal	
SUBTOTAL (1) (\$) 750.00 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Extra Claims Fee from Extra Claims Independent Claims Multiple Dependent Large Entity Small Entity	1004 750 2004 375 Reissue filing fee		1403	280	2403	140	Request for oral hearing	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Extra Claims Delow Extra Claims Delow De	1005 160 2005 80 Provisional filing fe	e	1451	1,510	1451	1,510	Petition to institute a public use proceeding	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Fee from Extra Claims below Fee Paid Total Claims 20 -20** = X = X = 1503 630 2503 315 Plant issue fee Independent Claims Multiple Dependent Large Entity Small Entity Small Entity Fee Fee Code (\$) Code (\$) Code	SUBTOTAL (1)	750.00	1452	110	2452	55	Petition to revive - unavoidable	
Extra Claims 20 -20** = X 1502 470 2502 235 Design issue fee X 1503 630 2503 315 Plant issue fee 1503 630 2503 2503 3			1453	1,300	2453	650	Petition to revive - unintentional	
Total Claims			1501	1,300	2501	650	Utility issue fee (or reissue)	
Independent Claims Multiple Dependent Large Entity Small Entity Fee Fee Fee Fee Fee Code (\$) 1202		elow Fee Paid	1502	470	2502	235	Design issue fee	
Claims Multiple Dependent Large Entity Small Entity Fee Fee Fee Fee Code (\$) 1202 18 2202 9 Claims in excess of 20 1203 280 2203 140 Multiple Dependent Claims over original patent 1204 84 2204 42 ** Reissue claims in excess of 20 1205 18 2205 9 ** Reissue claims in excess of 20 1206 18 2205 9 ** Reissue claims in excess of 20 1207 18 2205 9 ** Reissue claims in excess of 20 1208 18 2205 9 ** Reissue claims in excess of 20 1209 18 2205 9 ** Reissue claims in excess of 20 1200 18 2205 9 ** Reissue claims in excess of 20 1201 18 2205 9 ** Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$ 0.00 1800 1801 1806 180 Submission of Information Disclosure Stmt 1800 1800 1800 1800 1800 1800 375 Filing a submission after final rejection (37 CFR 1.129(a)) 1810 750 2810 375 For each additional invention to be examined (37 CFR 1.129(b)) 1801 750 2801 375 Request for Continued Examination of a design application Other fee (specify)	Independent (a)	━┤╄━━┤	1503	630	2503	315	Plant issue fee	
Large Entity Small Entity Fee Fee Fee Fee Fee Code (\$) 1202 18 2202 9 Claims in excess of 20 1203 280 2203 140 Multiple dependent claims in excess of 31 1204 84 2204 42 Reissue independent claims over original patent 1205 18 2205 9 Reissue claims in excess of 20 1205 18 2205 9 Reissue claims in excess of 20 1802 900 1802 900 Request for expedited examination 1807 50 1807 50 1808 50 1808 Submission of Information Disclosure Stmt 8021 40 8021 40 Recording each patent assignment per property (times number of properties) 1809 750 2809 375 Filing a submission after final rejection (37 CFR 1.129(a)) 1807 180	Claims 3 =	=======================================	1460	130	1460	130	Petitions to the Commissioner	
Fee Fee Code (\$) 1202 18 1202 9 Claims in excess of 20 1203 280 1204 84 1204 84 1205 18 1205 18 1205 18 1205 18 1206 (\$) 1206 (\$) 1207 18 1208 18 1209			1807	50	180	7 50	Processing fee under 37 CFR 1.17(q)	<u> </u>
Code (\$) 1202 18 1202 9 Claims in excess of 20 1201 84 1203 280 1203 280 1204 84 1204 84 1205 9 Reissue claims in excess of 20 1205 18 1205 18 1206 (\$) 1206 (\$) 1207 Reissue claims in excess of 20 1208 8021 40 1209 375 Filing a submission after final rejection (37 CFR 1.129(a)) 1209 375 For each additional invention to be examined (37 CFR 1.129(b)) 1201 84 1202 18 1203 280 1204 19 1205 18 1206 19 1206 18 1207 19 1208 18 1208 18 1209 18 120		n	1806	180	1806			<u> </u>
1201 84 2201 42 Independent claims in excess of 3 1809 750 2809 375 Filing a submission after final rejection (37 CFR 1.129(a)) 1203 280 2203 140 Multiple dependent claims in excess of 20 1810 750 2810 375 For each additional invention to be examined (37 CFR 1.129(b)) 1801 750 2801 375 Request for Continued Examination (RCE) 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent 1802 900 1802 900 Request for expedited examination of a design application Other fee (specify) 1802 900 1802	Code (\$) Code (\$)		8021	40	802	1 40	Recording each patent assignment per property (times number of properties)	40.00
1203 280 1204 84 2204 42 ** Reissue independent claims over original patent over original patent 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent SUBTOTAL (2) (\$ 0.00 1810 750 2810 375 For each additional invention to be examined (37 CFR 1.129(b)) 1801 750 2801 375 Request for Continued Examination (RCE) 1802 900 1802 900 Request for expedited examination of a design application Other fee (specify)			1809	750	2809	375		,
1204 84 2204 42 Resiste interpendent claims over original patent 1801 750 2801 375 Request for Continued Examination (RCE) 1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent 1802 900 1802 900 Request for expedited examination of a design application Other fee (specify)			1810	750	2810	375	For each additional invention to be	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent 1802 900 1802 900 Request for expedited examination of a design application 1802 900 Other fee (specify)			1801	750	2801	375	, , , , , , , , , , , , , , , , , , , ,	
SUBTOTAL (2) (\$) 0.00 Other fee (specify)	1205 18 2205 9 ** Reissue claims	in excess of 20			_		Request for expedited examination	
SUBTOTAL (2) ((\$) 0.00			1					
**or number previously paid, if greater; For Reissues, see above *Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40.00	SOBIOTAL (2) (4)					Filing F	ee Paid SUBTOTAL (3) (\$) 40.00	

SUBMITTED BY (Complete (if applicable) Registration No. Steve S. Cha Name (Print/Type) 44.069 Telephone 201-518-5518 Attomey/Agent) 07 Signature

WARNING: Information on this form may become public. Credit card information should got be included on this form provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.